

CLAIMS

1. An optical element fixing structure, characterized in that the optical element fixing structure is an optical element fixing structure to fix an optical element such as a crystal which comprises an optical element and an optical element holder to fix and mount the optical element, in that the optical
5 element has one or multiple slits in the thickness direction in an outer edge part thereof (which is present on the optical element but outside a working surface of the optical element and can be used as a portion to fix the optical element to the optical element holder; this applies also in the following), and in
10 that the optical element holder has depressing means to fix the optical element by depressing at least one of the front surface and the back surface of the optical element outside the slit.

2. The optical element fixing structure according to claim 1, characterized in that the depressing means depresses only one surface, which is one of the back surface and the front surface of the optical element.

3. The optical element fixing structure according to claim 1 or 2, characterized in that the depressing means is an elastic body attached to the optical element holder.

4. The optical element fixing structure according to any of claims 1 to 3, characterized in that the planer shape of the optical element is any of a rectangle, a circle, an ellipse and a polygon, such as a triangle, a parallelogram and a hexagon.

5. The optical element fixing structure according to any of claims 1 to 4, characterized in that the slit has a depth sufficient for preventing the propagation of only depression strain of the optical element to the working surface of the element.

6. The optical element fixing structure according to claim 5, characterized in that the slit has a depth which is not less than half the thickness of the optical element.

7. The optical element fixing structure according to claim 5 or 6, characterized in that the slit is provided in both of the front surface and the back surface of the optical element.

8. The optical element fixing structure according to claim 7, characterized in that the slit is provided alternately on the front surface and back surface of the optical element.

9. The optical element fixing structure according to any of claims 5 to 8, characterized in that the slit is a linear structure at least one end of which is open to a side surface of the optical element (which surface is the surface which connects the front surface and the back surface together; this applies also in the following).

10. The optical element fixing structure according to claim 9, characterized in that the optical element is in the shape of a rectangle and in that the slits are provided in at least two locations of the outer edge part of the optical element, one slit for each location.

11. The optical element fixing structure according to claim 9, characterized in that the optical element is in the shape of a rectangle and in that the slits are provided in at least two locations of the outer edge part of the optical element, multiple slits for each location.

12. The optical element fixing structure according to any of claims 5 to 8, characterized in that the slit is in the shape of a circuit or a convolution, such as a circle and a rectangle.

13. The optical element fixing structure according to claim 12, characterized in that the optical element is in the shape of a circle or an ellipse.

14. The optical element fixing structure according to any of claims 2 to 13, characterized in that the elastic body is a plate spring.

15. The optical element fixing structure according to any of claims 2 to 14, characterized in that the elastic body is provided on a surface of a base for fixing the elastic body, in that the base for fixing the elastic body is provided in a bottom part of the optical element holder, and in that on the back
5 surface of the base for fixing the elastic body there is provided adjusting means, which is capable of adjusting the depression by the elastic body by up-and-down movements of the base for fixing the elastic body, in such a manner as to pierce through the optical element holder.

16. The optical element fixing structure according to claim 15, characterized in that the adjusting means is an adjusting screw and is provided on the back side of the elastic body.

17. The optical element fixing structure according to any of claims 1 to 16, characterized in that the optical element is a crystal for X-ray monochrometer.

18. An optical element fixing body, characterized in that the optical element fixing body has the optical element fixing structure according to any of claims 1 to 17.

19. An optical element, characterized in that the optical element can constitute the optical element fixing body according to claim 18.

20. An optical element holder, characterized in that the optical element holder can constitute the optical element fixing body according to claim 18.